No. 4290

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

ROY WARD and OTTO PETERSON,
Copartners,
Appellants,

vs.

SHOPE BRICK COMPANY, a Corporation,
Appellee.

APPELLEE'S BRIEF

Upon Appeal from the United States District Court for the District of Oregon

ROBERT R. RANKIN,
Attorney for Appellee.

HOUGHTON-CARSON COMPANY, PRINTERS

INDEX—CONTENTS

Page

CASES

CASES

CASES

STATUTES

TEXT BOOKS

No. 4290

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

ROY WARD and OTTO PETERSON,
Copartners,
Appellants,

vs.

SHOPE BRICK COMPANY, a Corporation,
Appellee.

APPELLEE'S BRIEF

Upon Appeal from the United States District Court for the District of Oregon

INTRODUCTION—*The Parties*

The patent process for making a faced cement brick involved in this suit expires in four years.

During its thirteen years of life, the respondent owner has built a substantial plant in Portland, Oregon, and sold licensees the right to operate under its governmental protection over the North American conti-

nent, whereby investments of between four hundred thousand and five hundred thousand dollars are now existent, producing between two hundred thousand and three hundred thousand faced brick per day. The patent rights have been acknowledged and acquiesced in and "no one worth while in a material way has attempted to infringe the patent."

The appellants have operated on the southeast outskirts of Portland, Oregon, in an old barn, from May to October, 1923, with what one of the appellants called "a little machine" purchased either from Montgomery, Ward & Company, or Sears & Roebuck, marked "Pat. Apl.", one mixer and one form mold, as shown in the pictures (Plaintiff's Exhibits are numbered 2, 3, 6 and 7) upon which they had manufactured a total of five thousand faced concrete brick.

QUESTIONS INVOLVED

There are but two questions involved in this case: first, is the patent valid, and in this regard it is noted that the patent is attacked upon three points: that it does not involve patentable invention, the process was anticipated in the prior art, and it is inoperative; and second, did the appellants infringe the patent.

Assignments of Error 1, 2, 3 and 4 involve the first question; Assignment 5 involves the second question; and the remaining Assignments, 6 and 7, are purely general, predicated upon the adverse finding of the

court to appellants' contentions on both of the above questions.

STATEMENT OF FACTS—A. *General*

Appellants' Brief offers practically no statement of facts, so the evidence on all points involved is segregated as follows:

David F. Shope is the original inventor of the process of forming a waterproofed faced cement block, as described in Letters Patent 985709 (213)*. The patent was assigned to the predecessor in interest of the Shope Brick Company and is now owned in its entirety by the appellee. The company operates a manufacturing and selling business at Portland, Oregon, and has extended the monopoly intended by the Patent Office to eliminate duplication of investment and ruinous competition, to licensees in twenty odd states of the Union and Canada, upon which these licensees, exclusive of appellee's business, have founded investments, including machinery, installation, overhead and license protection, to the extent of four hundred or five hundred thousand dollars and produced from two to three million faced brick per day, depending upon the class of faced brick and material used, which industry appellee has covenanted itself to protect by a guarantee issued to each licensee: "That vendor (appellee) is the sole and exclusive owner of said patents and patent rights

*Whenever figures are mentioned, unless otherwise indicated, they refer to the Transcript of Record.

and licenses and that it will warrant and defend * * * the licenses of rights under said patents to vendee in the use of said process in said territory against all persons whomsoever," (Defendant's Exhibit is lettered C) and with these licensees, appellee is in constant touch.

The appellants, Ward and Peterson, have lived in Portland, Oregon, since 1907. Roy Ward followed general cement work, when not engaged as Deputy Sheriff or railroading, and Otto Peterson has been engaged in cement construction work "off and on * * * around fifteen or sixteen years", and adding, "I am not very much of a cement man." They started to get their building ready the first of 1923, purchased their machine the following May, and made their first brick about that time and continued until stopped by injunction of Federal Judge Wolverton, on the 23rd day of October, 1923. Appellant Peterson did not but Ward did make brick. All of Peterson's previous experience when in the brick business up to 1923, was in the manufacture of clay brick.

STATEMENT OF FACTS—

B. *Patentable Invention*

As stated in open court, appellee's business depends on the validity of the one mentioned patent, and all others were stricken from the case, leaving this suit to be contested upon Paragraphs I, II, III, VIII, IX and XIV to XVIII of the complaint and Paragraphs I, II, III, VIII, IX, XIV to XIX, XXII and XXIII of the answer.

Patent 985,709 was introduced in evidence, admitted, marked Plaintiff's Exhibit 1 and read.

Mr. Shope, the inventor, began experimenting twenty years ago because he conceiced the idea, as cement became available, that it was possible to make brick out of cement at points where clay was not available and long distance shipments were either a heavy expense to the clay industry or rendered the use of clay products impossible. The bricks at that time were semi-dry common bricks and chemists had just begun their integral water proofing compound to overcome porous conditions of cement bricks and there was very little cement brick product on the market. Such as existed was porous and weak in comparison to what a good concrete product should be, and the invention overcame this through the incorporating of more water in the fabrication and effecting the process of waterproofing as well as ornamenting the face. The trade did not take kindly to the proposition except in limited cases. The inventor had a great struggle, but gave the effort to place his process before the public, his serious and constant attention for some twenty years, which had been primarily devoted to that service, and the present business of licensees amounts to about for or five hundred thousand dollars and extends over the North American continent. He operated his business without interference until three years ago, always eliminating infringers, who consisted of no one worth while in a material way. Many of them quit without contest when the matter was placed before them or the patent inves-

tigated. At the present time he has one case pending in Pennsylvania and one in the state of Washington, in addition to the present one against Ward and Peterson whom he had not licensed or authorized to manufacture or sell brick and, having become aware of their activity about May or June, 1923, contemplated visiting them and was prevented from doing so by sickness until, in company with his attorney, he visited the plant in July, 1923, and advised appellants they were making faced brick which was an infringement of his patent; to which they replied that they had been doing this for twenty years, to which Mr. Shope replied he would give them $500 or $1,000 to produce such brick; and he was then ordered out of the plant, the interview ending unpleasantly.

Appellee introduced the oral testimony of Angus Fleming and G. E. Starks to show there was no invention disclosed in the patent, the former swearing that he was more or less acquainted with Shope patent and acquainted with the making of cement block in a semi-dry state for some twenty-two years, with the application of water if they wished to put a coating on a block with a trowel as is described here, the putting of face on a brick and the coating or plaster on a wall. He had also put down sidewalks with the same material and in the same manner; that there would be pores or voids in the cement structure as there were even pores in a glass bottle, and the cement mixture of coating would enter these pores to some extent if you used water enough and put the water in first before the cement. In such

instance the cement would go down into the pores of the block to a slight extent but only by using pressure or by being wet, and would go no further down than between the sand particles on the exposed surface of the brick. He had had experience to prove this by facing abutments of rough concrete in the Grand Avenue Bridge, Portland, and nearly forty years ago he remembered doing work with dry cement and sand mixed together in semi-dry state and sprinkled cement over or troweled cement into a block because there was a surplus of water. In answer to the Court's inquiry if he covered the block of semi-dry cement with water and sprinkled cement over it, if cement would go into the block, he replied this would depend on how large the pores of the block were and if it was sand it would penetrate but a very small distance, but he never saw brick made according to the Shope method as described in the patent.

Mr. Starks testified he had been foreman of a concrete crew for several years and had been acquainted with the manufacture of bricks from a mold in a semi-dry state for twenty-two or three years. Thirty years ago in Michigan, he had made caps for pillars for porches, and later in Portland had used lamp black in coloring sidewalks, putting it on dry, applying it when the cement is pretty well hardened, then taking neat cement and plastering it on top, roughing it in to form a bond with the coating that was put on; and, taking a cement block, pouring on cement and water and there would be very little penetration. If the pores in the

cement block in a semi-dry state were large enough, there would be penetration but the moisture will rather come up to the cement than the cement go into the brick unless you work it down with agitation. You can put water on the surface of the block and put your dry cement over your water and your cement will not carry your material down into the pores. So far as penetrating of the brick is concerned, the cement would not penetrate three-eighths of an inch into the brick. He had never made any experiments on brick and based his statements on experience with asphalt pavement. But water would take the cement down into the brick if the voids were large enough, but he did not believe you could get them large enough in sand. He could not give any figures on the fineness of these voids or the fineness of cement particles, as he was not an expert on that. When asked by the Court if he took a semi-dry block in a mold, could he pour water on it and have the water go into the block, he said if the block was moist, the water would go clear through it, but it would not carry the cement in solution very far into the brick; that he did not know anything about cement brick.

Roy Ward testified that he carried mortar when he was nine years old, and had applied the trowel to facing on cement blocks in a plant in Iowa in 1904, and was doing nothing different from that now.

Otto Peterson testified that he had been "just off and on" in the cement construction work for fifteen or sixteen years; that he had seen Ward making these

brick and had seen it done twenty-five years ago at St. Paul, Nebraska. At that time he was not working in "cement brick mills," but ran a manufacturing clay brick yard.

Dr. Ralph K. Strong testified that his experiment on the penetration of the cement into a block had been based upon straight sand covered with water, the cement added without mixing and poured onto the sand and allowed to set. The vessel in which it was contained was broken and the surface contact between sand and cement carefully examined and there was no penetration, and that in some cases free surfaces of cement were exposed. This was true with either dry or neat cement; and that agitation affected the result to the extent that the greater the agitation, the more the block material will be intermingled with the cement, but there would be no difference in penetration, that is, cement passing into voids. That it was perfectly apparent that any void that is less in diameter than the cement particle will hold the cement particle from penetration and, under the colloidal theory, the cement particles would not go in as far as they would when the cement was fresh, but would act as a means of excluding the intrusion of cement into the pores. Dr. Strong admitted on cross-examination that the patent did not mention a brick made solely of sand and that the patent called for a porous body and being made of solid particles, there must be some voids and when the milk of cement was placed upon such porous body, if the voids were larger

in diameter than the particles of cement, the cement particles would "fall in."

Dr. Ernest E. Werner, appellee's expert consulting engineer, testified that the basis of this patent is the method of forming waterproofed faced cement blocks and after the formation of a semi-dry body, which is old in the art, he wishes to place a facing, described as follows:

> A. "He (patentee) says, 'Water is next applied, as by sprinkling, to the face of the block in sufficient quantity to enter the pores or interstices of the block, and then a powder of cement, either neat or mixed with sand or other ingredients, is sifted upon the water.' Claim 1 substantiates this description to this point. He then adds: 'Which is at the same time agitated so as thoroughly to saturate the face of the block.' The 'same time' is rather important. Now that clearly defines to me what he wishes to do. He now goes on to explain what will happen. 'The water will thus enter the pores or voids of the block to the required depth, and carry with it the cement powder sifted thereon.' That is purely an explanation. Then also 'The water serves both to carry the cement into the pores and to cause crystallization of the added cement, and no external pressure will be required to force the water and cement into the block.' That concludes his statement. The rest of the sentence merely expresses that he may thereafter do what he

pleases, which presumably is his right. That, your honor, in my opinion is the substance."

Q. "We have had some testimony as to how cement and water act or interact in regard to colloids. In your opinion does this matter for the purpose of this patent?"

A. "Not everyone accepts the theory of colloids as applied to the cement industry, the utility of cement; this theory is being more and more adopted, although still considerable controversy exists. I would say it enters to this extent; it throws considerable light upon the statement made by the patentee, as to carrying cement into the voids, I would rather think on the earlier steps of the formation of the ultimate colloidal gel. These earlier steps being merely the suspension of the cement in water, similar to what Dr. Strong referred to in his mud puddle. Cement is very much the same substance physically as clay. Furthermore, the standard cement is of varying fineness; I am speaking from memory, although I have little literature to verify it, your Honor. Twenty-five per cent of the ordinary cement will float upon a 200-mesh sieve. I believe there are standard Government specifications and I am rather referring to this than to scientific discussions on the subject. Also 25% of the particles will be finer than two ten-thousandths of an inch. Now that is well within the borderland of suspension, such suspension as the doctor re-

ferred to in regard to mud. It does not take much imagination to visualize that when one takes a quantity of cement and a quantity of water—I think we can even fix the quantity—if one takes a large quantity of water and a small quantity of cement, one could use in part a colloidal suspension which will pass through a filter; I can see no difficulty why it should not enter the superficiary pores. Now, when one approaches this from the standpoint of the patent, this is dealing with indefinite quantities. The patentee says 'sufficient' to enter the interstices or pores. One might reason this—rather let me put it this way; I would reason this way: That part of the cement, that part which enters—may I use his language—'some of the cement' will doubtless be put into this condition of suspension and thereby enter the pores. Dr. Strong spoke very correctly of the latter stages of the setting of cement. Later on, this hypothesis may apply, this imaginary condition of gelation, a plastic colloidal gel be formed, but we cannot reach that condition, if your Honor pleases, without getting preliminary our condition of suspension which functions for the patentee." (Pgs. 173-176.)

Dr. Werner then testified as to the experiments made in his own laboratories, as follows:

"Again, using roughly from memory patentee's description, the semi-dry aggregate was mixed. May I, in reference to this disputed point, agitation

and pressure, state the details? Six brick were made simultaneously. There were six molds in bank. The upper surface of these molds, when in juxtaposition and ready to receive the aggregate formed a perfectly smooth surface over which either trowel or float or any other instrument which is wide enough to straddle it would of course float, in the full sense of the word, would not compress. Into this mold was placed the aggregate which was tamped and stricken off. On it was placed water and cement in the following fashion. The man would hold in one hand a sprinkling-can and in the other hand a can arranged to sprinkle or discharge a regulated quantity of cement and rapidly pass both over the mold. He would then take this instrument which you have in your hand and use it. Now, as to whether or not, under those circumstances, there is much—some compression, one might quibble, but I would say that in view of the fact that the upper surface of the mold clearly restricts the downward motion or movement of the instrument used, one can call it, with perfect propriety, agitation." (P. 186-187.)

And the brick introduced in evidence Exhibit 11-A, 11-B and 11-C, were made in the manner described in the patent with certain variations in finishing, and the result of Dr. Werner's experimentation was as follows:

"If I may put it in my way: It occurred to me last night, after listening to Professor Strong, that

his statement of no penetration was hardly in accord with experiments which I had made at my laboratory at St. Louis in similar fashion, and not knowing whether I had been mistaken at that time, I wanted to repeat it under commercial conditions. The experiment is hardly a fair one in this sense, that instead of using sand, as directed by the patentee, I substituted a ground coke. I am speaking fair in a commercial sense, for I cannot see that this patentee has said to me I cannot put this facing on ground coke if I wish to do it, if I formed a block from it. If your Honor pleases I would like to have this speak for itself. I call it a slight penetration. May I have the exhibit broken now, if you please. I wish to break it in court." (P. 188).

The brick was broken and Mr. Werner stated from his examination, he unquestionably found penetration; that this brick was made in accordance with patent specifications, and the claim of what was old or new, as disclosed in this patent, is clearly set forth in Dr. Werner's testimony that the art was as ancient as the pyramids and many men had endeavored to make blocks out of cement, but he had been unable to find specifically either sequentially or otherwise, the thought of mixing *"in situ"*—it is either that or nothing. Mix *in situ,* that is what this patentee wishes to do.

STATEMENT OF FACTS—C. *Anticipation by Printed Patents*

Twenty patents were cited in the answer and alleged to bear upon the process patent in this case. For brevity's sake, we divide these patents into three classes:

First: Thirteen of those patents so cited as antcipating the Shope process are not contained in the transcript of record. The appellants have apparently abandoned them as without merit and for the same reason, no discussion is given here. Dr. Werner's testimony (178-185) briefly given, disposed of them to appellants' satisfaction.

Second: of the seven patents introduced (253-279), there was no evidence to support them and though they were briefly distinguished as hereinafter disclosed, no cross examination was risked by the appellants to refute the distinction made. These patents are:

(a) Edward Goode, No. 508,239, defendants' Exhibit "F", distinguished as forming a surface of pure cement, and claims that his stone must remain in the mold for a twenty-four hour period prior to removal. This would not lend itself to commercial mass production of brick as is accomplished under Shope patent (p. 179).

(b) Augustus O. Thomas, No. 958,194, Defendants' Exhibit "V", distinguished as follows:

"On lines 55 to 65 this patentee says the following: 'The addition of the powdered marble or other stone mixed with cement serves the immediate purpose'—I have no doubt it will be made clear—'the immediate purpose of forming a very thin outside layer on the face of high plasticity preventing, by a thickening or stiffening action, the surface tendency to run, due to the oozing of the water to the surface.' In his claim, line 86 and on over to the end, he says: 'in forming on the surface of said facing a thin layer in low plasticity by sifting on such surface powdered stone and cement to stiffen the surface of the facing and prevent the escape of moisture therefrom.' Here is a man who clearly had the same intent Shope had. He however makes a three step operation, and consequently if one would operate Thomas, in view of the subsequent disclosure of Shope, one could produce doubtless a brick of Shope type. I don't think however that you could fairly read this patent as having had reference to Shope." (p. 184).

And it is a curious fact that this patent was in the Patent Office at the same time the Shope patent was there, but was issued ahead of Shope, and while appellants seemed to think there is ample room for interference, evidently the Patent Office considered Shope free from such interference.

(c) Frederick A. Mallette, No. 751,089, Defendants' Exhibit "W", distinguished on the ground that

Mallette takes the larger portions of aggregate, covers them individually, in his language, with mortar and puts them in a mold and floats upon it the liquid cement, and bricks could not be made that way.

(d) Charles W. Stevens, No. 625,563, Defendants' Exhibit "J", was distinguished by the Court of Appeals, and opposing counsel did not press the witness beyond that statement.

Third: In distinguishing all the twenty patents cited only the distinction of the following three patents drew the fire of cross examination. All the testimony fairly abstracted is as follows:

(a) Antone Federici, No. 518,239, Defendants' Exhibit "G", was distinguished because it defined a process of putting large pebbles into a liquid mass of cement and allowed to harden the mass in the mold. The cross examination thereon was as follows:

In the Federici patent, Figure 3 of the drawing shows something of a cement block with a plastic coating C upon it. In distinguishing this disclosure from the Shope process I find myself in difficulty in that they don't resemble each other in thought or conception. I may be at fault. Shope is for a patent to produce in a specific fashion a specific result. That is my comprehension of it. What is the claim in this? He says, "Into the surface of which pebbles of substantially uniform size are partially embedded." The illustration

shows he has not in mind any more than a building block. As I have said to you cement faced building blocks or even bricks are old except as made in a specific method. I think you ought to show that this is a method of Shope. In line 29 "A" represents stones and pebbles, "B" the pebbles and "C" a layer of pure cement which in the sense we discussed it is a waterproof layer, and is applied to block "D" upon pebbles "B", both of which may be cement. The patent is for an article of manufacture, not a process in the patent, though it does show a process. (pp. 206-207).

(b) William J. Haddock, No. 531,842, Defendants' Exhibit "H", distinguished in that the principal idea of this patent is to combine the use of an artificial and natural cement. It is for a block. The waterproofing is applied in a single layer, that is a stratum between the base and a layer superimposed upon the stratus, which the patentee speaks of as waterproof. In this case this patent as well as many others shows that the art made many efforts to produce waterproof brick. Fairly interpreted, Dr. Werner distinguished it on cross examination as follows:

I find in the Haddock patent, to put it very plainly, almost everything which Shope wishes to make, but I don't find anywheres a clear and concise and specific statement such as Shope makes, that if you mix on the top of your brick you will get a result. With this statement please proceed, because I merely want to help you see how much there is between us. To my mental limi-

tations I do not find this invention in suit, as a process or method of doing a certain thing, also shown in Haddock. In reciting just what Haddock shows, layer B is intended to be a waterproofing stratum in which he superimposes the facing for the element D. Haddock, in the sentence beginning on line 76 of the specifications says, "I employ the term 'moist' and wish it understood as designating a damp condition rather than a condition approximating a fluid or a wet condition, the mass so treated is thoroughly tamped and compressed, the 'moist' condition of the mass preventing the water from oozing out as would be the case were the mixture oversaturated with water," is just what Shope does, but Shope does more, I can't confine him to that statement. I read Shope as a facing on a block which block is old and I don't care a picayune for it. Shope in his first claim says his process consists in first forming a block of suitable material in a semi-dry state which is anticipated in Haddock and elsewhere. Haddock continues: "I then moisten this coating. The amount of material used in this step is sufficient to form a complete coating or covering and constitutes a stratum impervious to water" would not give a Shope brick under the second step of the Shope patent where he applies water, then cement, first sprinkling with water the block which he has formed because Shope goes on further in giving me instructions as to how much water to use,—sufficient for his purpose, next he sifted cement upon it. That is Shope. The Shope process defined in his claim 1, to my mind is not shown in Haddock as above discussed

because of this distinction: Shope directs you to take a semi-dry aggregate tamping it into a mold. This becomes a matrix for further steps. Now he says sprinkle water on sufficient for his next step, sufficient to enter the interstices of the block whereby his next step will produce a result. Surely I can't read disjointed sections of this patentee whose ambition is similar but whose method is different and stop at any one step. While Haddock, in lines 91 and 92, says after he has made this block he then moistens the coating and to the degree to constitute a stratum impervious to water. But Shope speaks intelligently: You can take this Haddock patent or several other patents—I shall not help you with this—and practice them in the light and sense of the Shope disclosure—may I call it the philosopsy of his action— and you will get the Shope result, but I will not go so far as to say that any of the evidence patents—and there are quite a number of them—state this in any such fashion that I can go on making it without dissecting, without separating, without quibbling, and while patents are addressed to one skilled in the art that does not mean one shall dissect out of something part of it. As I understand, it should be made so that one skilled in the art can read it and practice it but not anyone skilled in the art can take a portion of it and leave another portion of it off and do something. That is not my way. Shope is undertaking to tell the world he has made some improvement in the method of waterproofing cement blocks. And I tell you, as far as my investigation goes, he did. I can see in the light of what

he has told me that you can practice him without subtraction or addition of certain matter from the language of other patents, and I have fairly tried in literature of the art, or in the patents, to find this simple statement in a simple fashion, to find the specific direction, but I have been unable. I cannot admit the statement that if the application of a neat cement coating to porous bricks was new in Shope that it was also shown in Haddock. You are asking to admit in essence that the ham in a ham sandwich is the same as the bread. This man contemplates to make a three-layer structure, sandwiching a waterproof coating in there. I think he did. I grant he made it. I do not agree with your statement that all Mr. Shope undertakes to communicate to the public in exchange for this patent was done by Haddock. In language Haddock may have shown the application of a coat of wet cement to a semi-dry cement block, but to my mind not even a suggestion of the clear language of Shope.

(c) Edward Davies, No. 703,644, Defendants' Exhibit "L". This was differentiated on direct as being a patent for fence posts. The cross examination was as follows:

The specification itself does not show a block made of semi-dry cement subjected to a coating of waterproofing cement mixture. I have dismissed it in my notes as for cement posts hardened in the mold. I mean left in the mold to harden. He fills mold 1, 'which may be of any preferred shape, with a mass of damp

sand, gravel and cement, mixed in suitable proportions' to produce the best results, and this composition is pounded into the mold' to cause a close adherence of the molecules of the composition, the sides 2 of the mold being closed up as shown in figure 1, etc.' 'To present the proper opening or holes through which the wires are passed for securing the fence wires in position, etc.' I think he does all you claim, except no indication in my mind to Shope or method. I said everything else of the Shope brick but his method. The process is not shown here. In referring to the sentence beginning with "When the composition has become sufficiently set to permit of the posts being handled without danger of breaking and before it has become finally set * * *" but he says when it has become sufficiently set. He is waiting for this—"the sides of the mold are let down and the post is removed from the mold and dipped into a bath of pure liquid Portland cement of such fluidity as that it will run smoothly and evenly over the entire exposed surfaces of the post, and fill all cracks, crevices and interstices except the openings left by the bars." We are in perfect accord. This man speaks of interstices and bars, and wishes to dip his brick into a liquid bath of cement.

There is a decided difference between subjecting it by dipping and mixing the cement in situ, and surely you will not ask me as a mechanic, or as an engineer, or as a mere scientist, to tell you there is not; but whether or not there is a difference I couldn't follow this on the face of it as a brickmaker, and make the Shope brick.

By dipping you would get exactly the same result Shope does provided you dip intelligently. What I want to say is this, you get exactly Shope results by dipping. May I again say, although you have resented it, that method would hardly render itself for commercial production in masses of brick. I really feel I must draw the Court's attention to that and we are in perfect accord, that by dipping Davies' brick after it has set, as described here, in a liquid bath cement, the cement would enter the interstices and you would get the Shope result entirely different and in my very humble opinion some foolish steps. Line 4 of Page 2 of Davies' patent describes a laborious operation requiring considerable time and resulting in an unequal and unsatisfactory surfacing of the posts. In view of this disadvantage it is the essential object of my invention to secure a uniform protective surfacing. There is nothing between us. I have said you will not get your coat or a perfect finish. The patent concludes, "by dipping the posts," or, reading it your way, "by dipping the brick in a bath of liquid cement, which operation may be quickly carried out, and results in a uniform coating." I perfectly agree with him and still say he is foolish; and the Davies' patent was applied for in 1901.

STATEMENT OF FACTS—D. *Infringement*

On Mr. Shope's first visit to the Ward and Peterson plant, he observed their stock pile, in which was a quantity of faced brick which it would be hard to distinguish in appellee's plant, and, on the last visit, ap-

pellant Ward showed the operation by which these brick were made.

Mr. Bilyeu, a mechanical engineer, fully qualified, said that he saw the workmen operate in the Shope plant a number of times and described the operation as follows:

> "The aggregate of sand and cement is tamped there, depending on what they are making; if it is faced brick they are making it is tamped by mechanical operation, the machine being manually operated, into the molds. The surface material is then struck or raked from the surface. Then the water and cement is applied to the surface of the brick, and the same is agitated, different workmen having a little different technique in the method of operating but in the main it is the same. Then the final surface treatment depends upon the character of the bricks that they are making, that is, if to be wire drawn, or whatever the surface trim is to be." (P. 109).
>
> "I notice some of the workmen, they usually have a water pot in their left hand, and a cement bearing carrier in their right hand, and they ply the water across the brick and then back two or three times to thoroughly coat the surface of the brick. It is then agitated with an instrument to thoroughly agitate the surface coating of the structure. (P. 110).

The agitation was with some pressure and the function thereof was to mix the material that had been applied upon the surface and the moisture would have a tendency to enter the brick structure, filling up the interstices or pores of the bricks. (P. 110).

Mr. Bilyeu had also seen Ward and Peterson operate and described the process as follows:

"The faced bricks were made in two machines one of which was a manually operated machine. The material was shoveled into a hopper or upon the machine until the brick molds were filled. It was then rammed with a hand rammer; the surplus material was then struck from the face of the brick. Previous to that, upon an elevated platform perhaps three feet high and three feet square, I would say, a cementaceous material was placed and with a trowel a crater was made in which water was poured. A trowel was then used to make a mortar of the same material. It was then applied upon the face of the brick with a trowel, going back two or three times for more material until a complete surface coat was created. Then a whiskbroom was used; the whisk-broom was first dipped into a barrel of water; the face of the brick was then stippled where the coating had been applied with the trowel. They went back on at least two occasions for additional liquid, Mr. Ward being the brick-maker, stated that the broom having not been used and

being dry didn't work as well as it would had it been wet or had been thoroughly saturated with water before." (P. 111-112).

And then testified that in his opinion the result was the same by both appellee's and appellants' method, and that there was a penetration of the cement into the poers of the brick.

Mr. Shope testified that while they made mortar on the side and simply placed that on the face of the brick, the appellants placed it there by agitation and applied water and did this repeatedly, and that the application of water after the slurry wa san infringement, when agitation was effected by a metal trowel or a stippling broom, and Mr. Shope was constantly advised that appellants were making Shope brick and selling them at a lower price than appellee's prices.

Mr. Fielder testified that a year and a half ago he saw the appellants in the Shope brick plant and that they asked him what was the proportion of the cement used in mixing the concrete and he told them, as well as described some of the machinery; and that they left hurriedly upon the entrance of the foreman into the plant. At that time Mr. Fielder was making faced brick.

Mr. Claude C. Clark, also an employe of appellee, testified that he had seen appellants in the Shope brick plant on two occasions, one admittedly on the 14th of May, 1924, and the other about two years prior to that

when he saw Mr. Peterson measuring the length, depth and width of tile pallets and of the tile themselves; and that he was there for about ten minutes.

Appellent Ward states that he did make the faced brick as follows:

> "First the sand and cement was put in a mixer and mixed, and put in a machine and tamped. The top of it was raked off by a hopper that slides over the face of the plates, and on the side had a table like a plasterer's mortar board with neat cement on on that, or sand and cement, whatever I want, and I mix that up first; mix that up first before I make any brick for this neat cement, especially if warm weather—let that stand or set for a few minutes, and break the initial set, while you are getting your concrete ready—sort of break the initial set, that is the first set. When we make our brick we mix this up, well mix—use two trowels, and break it up; use one in place of the hopper the plasterer uses; plaster that on top; if a smooth brick, I quit there; makes it smooth, absolutely smooth brick; that is all done. The ends of this machine lets down with two little levers. Hold one trowel on the top, use it as a straight edge and plaster on the ends of these bricks which stick in the front of the machine about one-sixteenth of an inch, which allows us to place the plaster; they stick in the face of the machine about one-sixteenth of an inch so as to give us something to work on; stipple—have my

brush—keep my brush in a bucket of water. I have tried practically all the brushes I could find; I find the best is a common fifteen-cent store whisk-broom; keep it in a bucket of water, and keep it well soaked so the ends of it is not sharp and won't dig up your work, and make a rough finish, although middling smooth on account when clear no pockets or holes have dried in it; makes a nicer looking job to my mind than rough brick, by keeping the brush soaked. Then take out and set away to cool." (P. 139-140).

That he applied the coating mixture by a common Marshalltown metal trowel; that he never tried such a wooden float as the Shope brick company used because a wooden float had more of a suction and it would suck or pull the moisture right up, stir the sand up and roll up the cement, while a trowel is smooth and slides right over; that you can't agitate with a metal trowel; and that he tried to keep away from agitation; and denied that he was in Shope's plant a year and a half ago. The brick we use is a semi-dry brick, but in facing the cement is mixed on a board before it is put on a brick. We never applied dry cement and water to the brick and there is no penetration when you sprinkle on water then sift on cement unless you float it in and then you would roll up the concrete underneath your top covering and you make a less rich mixture for your facing as it stirs the sand up in it.

On cross examination, Mr. Ward stated that the whiskbroom he used to stipple with was always kept in a bucket of water. The reason was to keep the bristles soft and it was so kept moist all the time or it would tear off the face of the brick, but in awful hot weather they used to use water to keep the cement from setting too fast, that they threw water on the face of the brick then. The brush that he used laid in the water all the time and unless in awful hot weather, never used water only what was naturally in the brush, and on May 14th, he dipped the brush in the water three or four times. Sometimes he never again dipped after taking the brush out of the water the first time. His counsel stated for him, however, that he always intended to keep the brush wet and Mr. Ward admitted that a constantly wet brush will carry water.

Appellant Ward further stated that you could not agitate with a trowel and there was a distinction between his agitation with a metal trowel and the agitation by Mr. Shope with wooden floats, but he did not know whether Mr. Shope used a metal faced float or not.

Appellant Otto Peterson described the making of cement brick as follows:

> "Put it on with a trowel. I never made them. Mr. Ward is the man that always makes that. Takes one trowel and puts it on with that and finished the top, smooth finish, and finishes it with a fifteen cent broom, I think, anyway finishes the

top, lets the door of his mold down, and his long trowel on the edge in this manner, smears it on the same as plaster on the wall, or any other part." (P. 148).

He was in the Shope plant the latter part of March or first of April; that he never measured tile in the place.

On cross examination, he stated that twenty-five years ago he was in St. Paul, Nebraska, working for a man who ran cement brick mills and he, Peterson, used to run the yard, sort of foreman, when the other man was not on the job, and that he was manufacturing clay brick there, and that there was no cement brick there at that time.

Dr. Ralph K. Strong stated that there is a difference in the thickness of the layers of the different faces of Shope brick, in that the outer face may be traced further down into the Shope brick; that this is accounted for by the agitation on the Shope brick, but there was no evidence of penetration. They saw the Shope brick manufactured, and that he could best disclose that the vigorous agitation caused the thickness of the face to be greater in the Shope brick than in the Ward and Peterson brick by taking examples of each, and accordingly defendants' Exhibit "Y" was the Ward and Peterson brick and Exhibit "X" was the Shope brick; and after exhibiting them to the Court, stated that the reason the Shope brick shows a color part deeper is because much more vigorous stirring is used in the manufacture than

in the Ward and Peterson brick; and the difference he noted by the manufacture of the Shope brick and Ward and Peterson brick was that the Shope surface was agitated a good deal more. In fact, the Ward and Peterson brick was hardly agitated at all, only in troweling back and forth, the movements of the particles one upon another would amount to some mixing, at which point the Court asked:

> Court: "I suppose, Professor, you mean in plain English that one was rubbed more than the other?"
>
> A. "Yes." (P. 167).

Further Dr. Strong stated that the Shope troweling was then with what he believed to be a wooden float and the Ward and Peterson trowel was a thin faced steel trowel and he felt there was a distinction in this particular.

On cross examination, Dr. Strong admitted that there would be voids in the semi-dry cement block or brick and the putting upon the milk of cement, if the cement particles were smaller than the sand particles, that some of the cement particles would enter the interstices in the semi-dry block.

Dr. Werner testified that in the matter of pressing or agitation, that they amounted to the same thing and so far as the contention was made that a float would function differently from a trowel, that there was no

such distinction as both would have the same physical effect upon the surface.

It was at the close of the case stipulated that Shope not only used wooden floats but metal faced floats as well.

POINTS AND AUTHORITIES

I.

A patent is a contract between the government on behalf of the people and the patentee, the validity of which must be presumed, and the Patent Office continues to grant and the patent courts to sustain claims on the theory it is sufficient if the elements of any patents are so associated in a unitary structure and cooperates to produce either (1) a new mode of operation; (2) a new result; or (3) the old result in a modified or improved way.

Railroad Supply Co. vs. Hart Steel Co. (C. C. A. 7th 1915), 222 Fed. 261.

INVENTION AND ANTICIPATION

1. The question of invention is one of fact, not of law, but to be determined by legal principles.

Keen vs. New Idea Spreader Co., (1916) 31 Fed. 701.

2. Patents are not held void for want of invention, except where invention is clearly absent.

Hunt Bros. Fruit Packing Co. vs. Cassidy, (1892) 53 Fed. 260.

3. Invention is not clearly absent from the subject of a patent however simple, unless the subject was logically deducible from the prior art as disclosed by use, prior patents or printed publications in any country.

Weber Electric Co. vs. National Gas & Electric Co., (1913) 204 Fed. 79.

Williams vs. American String Wrapper Co., (1898) 86 Fed. 641.

French vs. Carter, (1890) 137 U. S. 239.

4. Anticipation or denial of invention cannot be based upon picking and choosing pieces here and there from prior patents showing each of the elements of a combination as a whole. The real test is whether the mental concept disclosed in and by the laws of the prior non-anticipatory patents left no room for a new and independent mental concept in bringing into working form the new process under investigation.

Railroad Supply Co. vs. Hart Steel Co., (C. C. A. 7th 1915), 222 Fed. 261.

5. A device that does not operate on the same principle as that in suit can not anticipate, and it is not sufficient to constitute anticipation that the device relied upon might, by a process of modification, reorganization or combination, be made to perform a function performed by the patent in question.

Los Alamitos Sugar Co. vs. Carroll, (C. C. A. 9th 1909), 173 Fed. 280.

6. Anticipation should be supported not merely by the testimony of one or more numerous witnesses relating to matters many years previous, but by concrete, visible, contemporaneous proofs which speak for themselves, and a testimony of credible witnesses was rejected because there were no contemporaneous visible objects of that nature.

Emerson & Norris Co. vs. Simpson Bros. Corporation, (C. C. A. 1st 1913), 202 Fed. 747.

7. Where it is sought to ascertain the state of the prior art by means of prior patents, nothing can be used except what is disclosed on the face of the patents and they cannot be reconstructed in the light of the invention in suit.

Naylor vs. Alsop Process Company, (C. C. A. 8th 1909), 168 Fed. 911.

8. The burden of proof of showing anticipation is on the person attacking on that ground or pleading such defense, and if doubtful, the patent should be sustained.

Victor Talking Machine Company vs. Duplex Phonograph Company, (1909) 177 Fed. 218.

9. Where patentee has materially advanced the art, any doubt should be resolved in his favor.

Washburn vs. Gould, (1844) 29 Fed. Cas. No. 17214.

NOVELTY AND UTILITY

Novelty is not negatived by any successful application for a patent nor by any documents pertaining thereto, different from the letters patent issued in pursuance thereof.

Harves vs. McNeal, (1880) 5 Baum & Ard. 77.

Novelty is not negatived by anything not substantially identical with the subject of the patent, even though the function of the prior process or thing was identical with that of the patented matter. This rule follows from the doctrine that a valid patent may be granted for a new means of producing an old result.

Untermayer vs. Freund, (1893) 58 Fed. 205, 209.

Nor is novelty negatived by prior patent which describes a device which is so similar to the patent in suit as to constitute an equivalent, if the prior patent gives no indication that the inventor of the prior patent contemplated that his invention is capable of the use of the patent in suit.

Canda vs. Michigan Malleable Iron Co., (1903) 124 Fed. 486.

The burden of proof of a want of novelty rests upon him who attacks the patent, and if by oral evidence, it should be clear and satisfactory, and every reasonable doubt should be resolved against the party alleging it.

Clark vs. Geo. Lawrence Co., (C. C. Or. 1908) 160 Fed. 512.

Walker "Patents" (5th Ed. 1923), Sec. 76, p. 93.

Novelty can only be negatived by proof which puts the fact beyond a reasonable doubt.

Barbed Wire Patent, (1892) 143 U. S. 284.

Walker "Patents" (5th Ed. 1923), Sec. 76, p. 93, note 95.

Oral testimony of many witnesses, if unsupported by any evidence consisting of documents or things, must be very reasonable and very strong, in order to negative novelty.

Emerson & Norris Co. vs. Simpson Bros. Corporation, (C. C. A. 1st 1913), 202 Fed. 747.

The fact the trial court decreed in favor of appellees on conflicting testimony is entitled to consideration.

Wilson & Willard Mfg. Co. vs. Bole (C. C. 9th 1915), 227 Fed. 607.

General public acceptance and use or utility are facts to be considered in favor of patentable novelty and evidence of invention.

Torey vs. Hancock, (C. C. 8th 1910), 184 Fed. 61.

Mouce vs. Adams, (1874) 12 Blatch 1; 17 Fed. Cas. No. 9705.

Utility is decisive evidence of invention only in case of doubt.

Hollister vs. Benedick Mfg. Co., (1885) 113 U. S. 59.

But its commercial success may be taken into consideration.

Coffield Motor Co. vs. A. D. Howe Machine Co., (1911) 190 Fed. 42.

INFRINGEMENT

A patent for a process is infringed by him who without ownership or license uses substantially the process which the patent claims; whether or not he uses substantially the apparatus described or material prescribed by the patent, or equivalents therefor.

Tilghman vs. Proctor, (1880) 102 U. S. 730.

There are two tests of equivalency: (1) identity of function; (2) substantial identity of way of performing that function.

Steam Gage & Lantern Co. vs. Rogers (1886) 29 Fed. 453.

New Departure Bell Co. vs. Bevin Mfg. Co., (1894) 64 Fed. 859.

Read Machinery Co. vs. Jaburg, (1915) 221 Fed. 662.

A patentee, having described his invention and shown its principles and claimed it in that form which most perfectly embodies it, shall, in contemplation of law, be deemed to claim each form in which his invention may be copied unless he has manifested an intention to disclaim some of these forms.

Western Electric Co. vs. LaRue, (1891) 139 U. S. 606.

One thing to be the equivalent of another must perform the same functions as that other. If it performs the same function, the fact that it also performs another function is immaterial to any question of infringement.

Machine Co. vs. Murphy, (1877) 97 U. S. 125.

Foss vs. Herbert, (1886) 2 Fisher 31.

Sarvin vs. Hall, (1872) 9 Blatch 524.

Comptograph Co. vs. Mechanical Accountant Co., (1906) 145 Fed. 331.

ARGUMENT

"Patents often lend themselves to fine spun theories, but it is singular how plain they are, if they are worth anything, to the man who wishes to infringe for profit."* We turn immediately to argument in this form:

I. Is the patent invalid because
   (a) anticipated in the prior art?
   (b) of lack of invention?
   (c) inoperative?

II. Did appellants not infringe because
   (a) of the invalidity of appellee's patent?
   (b) their process of waterproofing faced cement brick was substantially different from Shope's?

Answers to these questions in the negative will justify the Patent Office in the issuance of Shope's patent, and Judge Wolverton in the issuance of a preliminary injunction and Judge Bean in his decision at the conclusion of the trial on the merits, as well as deny the seven assignments of error (47), refute defenses involved in the above form of argument, and sustain this contract between the United States government and the appellee as a new mode of operation in making brick facing.

---

*Circuit Judge Charles M. Hough in General Electric Co. v. P. R. Mallory (C. C. A. 2nd 1924), 298 Fed. 579, 588.

I. (a) Anticipation in the prior art of waterproofing faced cement brick is attempted to be proved by appellants in two ways: (i) the oral testimony of witnesses claiming to have used the method twenty or more years ago; and (ii) by printed patents dated prior to Shope's patent of February 28, 1911.

Four witnesses gave oral testimony of use in the prior art. Two were interested parties, Appellant Peterson saying: "I am not much of a cement man." "I never made them (the bricks)". He had *heard* about the manufacture of cement brick for some time (148-150). Appellant Ward used a trowel to apply a surface coating to a block twenty years ago in Iowa. Angus Fleming troweled dry sand and cement sprinkled over abutments of the Grand Avenue Bridge "very near forty years ago", (123) and G. E. Starks used dry facing on caps for porch pillars in Michigan thirty years ago. Neither of the last two witnesses had ever seen the process as practiced under Shope patents. The Court need give to Peterson's testimony no greater respect than he claimed. The uncertainty and irrelevancy of this oral testimony to the Shope process as herein defined can only be appreciated by reading it. Appellants' Brief (p. 46) gives but one sentence to this testimony. This feature of the case may, we submit, be disposed of by principles announced by Judge Putnam in the case cited in appellants' brief with great respect:

> "This case (Brooks v. Sacks, 81 Fed. 403, 26 C. C. A. 456) however, developed the underlying

rule, that ordinarily in cases like the present, it is necessary that the anticipation should be supported, not merely by the testimony of one or numerous witnesses relating to matters many years previous, but by concrete, visible, contemporaneous proofs which speak for themselves. In that case, the testimony of credible witnesses was rejected because there were no contemporaneous visible objects of that nature, and solely for that reason. * * * There we said that the evidence of anticipation must at least meet the expression in Morgan v. Daniels, 153 U. S. 120, there repeated, namely, 'that the proof must at least establish a clear conviction,' and we further explained that in this respect the action of the department was to be held to be of the high character which was required in the Maxwell Land Grant Case, 121 U. S. 325, and United States v. Bell Telephone Co., 167 U. S. 224. The result of these cases is that, with reference to questions of the class which we have here, namely, the identity of structure as between what is patented and what is alleged to have anticipated it, something more than oral testimony, even of the highest character, is required where there has been a considerable lapse of time.' (P. 750.) 'In the lapse of time the memory becomes especially confused as to the identity of matters similar in part, and especially of processes.' " (P. 752.)

Emerson & Norris Co. vs. Simpson Bros. Corporation, (C. C. A. 1st 1913), 202 Fed. 747.

Appellants evidently did not want this prior use inquired into because after pleading the general issue, they gave no notice of this testimony by allegation in this complaint or as required by Section 4920, U. S. Rev. Statute, 7 Fed. Stat. Anna. 309:

> "In any action for infringement the defendant may plead the general issue, and, having given notice in writing to the plaintiff or his attorney thirty days before, may prove on trial * * * That it had been in public use or on sale in this country for more than two years before his application for a patent * * * "

Speaking generously, appellants, having the burden of proof, have certainly not sustained it under the above admitted rule.

(ii.) Appellants' strongest, if not their sole hope to win their appeal rests on their counsel's ability to show Shope's patent invalid as anticipated by the printed patents in evidence. This is their strongest point disclosed by the emphasis given it in their brief.

Before discussion of the patents, attention is called to the great emphasis both in the Transcript and Brief, placed upon the file wrapper of the Shope patent. The argument appears strained and the use of the wrapper for the purpose disclosed is, in one circuit, prohibited, upon, we submit, sound reason:

"Therefore the successive rejections of this claim necessarily involved the rejection of the construction which the plaintiff seeks to put upon the patent at the present time—or at least, so it seems to us—and concludes it by estoppel from the interpretation which it now seeks to put upon those claims which the patentee eventually got. We take this occasion, however, once more to say that in the consideration of a file wrapper we do not look at the arguments of the applicant to the examiner. We wish it to be understood that, as we conceive the purpose for which the file wrapper can be examined, it covers simply the question of estoppels through rejected claims. The whole doctrine is somewhat anomalous at best, since it involves looking at preliminary negotiations in the interpretation of a formal document intended to be the final memorial of the parties' intentions. The practice, however, is too well settled for us to disturb, and we have no intention of casting any doubt upon it. This court, nevertheless, has twice already disapproved the practice of bringing into that interpretation the arguments of an applicant. Westinghouse Electric Co. vs. Condit Elec. Mfg. Co., 194 Fed. 427, 430, 114 C. C. A. 389; Auto Pneumatic Action Co. vs. Kindler & Collins, 247 Fed. 323, 328, 159 C. C. A. 417. We repeat now that disapproval."

A. G. Spaulding & Bros. vs. John Wanamaker, (C. C. A. 2nd 1919), 256 Fed. 530.

The doctrine so firmly established has most recently been reiterated.

> General Electric Co. vs. P. R. Mallory & Co., (C. C. A. 2nd 1924), 298 Fed. 579.

There were twenty patents cited in the answer as anticipating the Shope process, they were introduced (p. 151) under a stipulation of counsel and without a word of evidence or argument of counsel to aid the court in their interpretation. Appellee's expert testified as to their differentiation from Shope, which brought forth cross-examination on four only.

Appellants show great respect for this expert testimony for thirteen of the cited patents are presumably abandoned because they are not brought down in the record, nor are they mentioned in their brief. These are clearly out of consideration.

> "An analysis of all prior patents we deem unnecessary. If the strongest references can not prevail, it would be profitless to review the others." (p. 269.)
>
> Railroad Supply Co. vs. Hart Steel Co., (C. C. A. 7th 1915), 222 Fed. 261.

Of the remaining seven patents, appellants admit but six are concerned with anticipatory art. It is in-

teresting to note that no cross-examination was risked on either the Goode, Frederici or Thomas patents. The latter is one on which so much stress is now laid. And there is not a scintilla of evidence before this court interpreting any of these patents for appellants. If commercial piracy, committed by those not "worth while in a material way," is to deprive the appellee and investors in the United States and Canada of a joint investment of a half million dollars, initiated by the United States Patent Office, and lulled into a sense of security by thirteen years of public acquiescence, by the introduction of patents not disclosed as being in use, which were known to or in the patent office when the Shope patent was there, the anticipatory patents should certainly merit the dignity of an expert to show the Court if possible the absolute invalidity of the Shope process. In view of the seriousness of this case to appellee and the light manner in which appellants treated the alleged anticipatory patents in the trial court, appellee now requests the Court to disregard all these patents. Precedent and justification for such course are ample:

> "The specifications and drawings of the patent in suit are indefinite and incomplete, anticipation is claimed, but the defense is only suggested by injecting a large number of prior patents into the record without any explanatory testimony, and, apparently for this reason, the court below has filed no opinion, except a statement that the claim in suit is valid and infringed. If an examination of the prior art were necessary to the decision of

the case, we should not sustain the defense of anticipation upon such mere production of patents for complicated combinations of machinery."

Bell v. MacKinnon et al (C. C. A. 2nd 1906) 149 Fed. 205.

"To sustain the defense of want of novelty the defendants have set up in their answer, and offered in evidence, a large number of patents prior in date to those of the complaint. In the absence of any expert testimony to explain these patents, or indicate what they contain tending to negative the novelty of the complainant's patents, we do not feel called upon to examine them. There may be cases in which the character of the invention has so little complexity that such expert testimony is not necessary to aid the court in understanding whether one patent, or several patents considered together, describe the devices or combination of devices which are the subject-matter of a subsequent patent; but this is not one of them." (p. 987).

Waterman v. Shipman et al (C. C. A. 2nd 1893) 55 Fed. 982;

See General Electric Co. v. Germania Electric Lamp Co. (C. C. N. J. 1909) 174 Fed. 1013. and cases cited there.

"A large number of prior patents have been placed before this court without evidence explaining them or their operation and it would be proper to wholly disregard them." (p. 429).

Benbow-Brammer Mfg. Co. v. Heffron-Tanner Co. (C. C. N. Y. 1906) 144 Fed. 429.

If this Court does consider these six patents, in order that appellee may not be in a position of disrespect, the following differentiation is shown:

Taken collectively, appellee's expert witness went the full limit in aid of appellants case in a statement admitted by opposing counsel to be "perfectly fair and perfectly true."

The art is as ancient as the pyramids, in its broad sense. An enormous amount of work has been done. Many men have endeavored to make blocks and most everything in creation out of cement. Some of them have attempted to make the very identical product, of course. There is no doubt you will find far more than I have been able to get indicative of a desire to do so, and many suggestions which taken and assembled will give us the Shope theory. In my mind is this: I have been unable to find specifically either sequentially or otherwise, as I interpret, the thought of mixing —may I call "in situ"—I can't assist you here. In

> my mind this patent states—it is either that or nothing. I will make it very easy for you; mix "in situ", that is what this patentee wishes to do. Whether he puts the water first or last or what he does, this is his invention as I see it.

Concerning the remaining six patents, the point is tenderly referred to in the appellants' brief generally at page four and in their discussion of the deceptive appearance of infringement at page sixty.

A more recent principle applicable to the presumption of validity of the Shope patent as against the patents cited by appellants, is ably expressed as follows:

> "Another consideration is the presumptive validity of a patent. From long and continued repetition of the phrase the members of the patent bar and of the patent bench sometimes may seem to get into the condition of the man who repeats a word over and over until it fails to convey any meaning to his mind. But this presumption should be given more than formal recognition. A 'patent' is a contract between the government on behalf of the people and the patentee. The grant of a patent might have been made conclusive evidence of its validity except against suits by the government for fraud or mutual mistake in the issuance. But the fact that certain defenses are left open to the individual should not make us lose sight of the nature of the presumption that attaches to the grant.

Not merely has the application been examined on behalf of all the people by experts who have access to all the prior patents and publications of the world; not only has the applicant spent his time and invested his money in procuring the patent; but in most of the important cases the patentee and those working under him have invested very large sums in buildings and machinery and have expended other large sums and put in great energy and effort to build up, by advertising and salesmanship, a profitable business. And this is done before any one challenges the presumptive validity of the patent. Courts therefore should not view the application as of the date of its filing and constitute themselves into a board of reviewing examiners and on nicely balanced considerations find that the Patent Office examiners were in error; but they should consider the patentee's equities in his business which has developed under the presumptive validity of the patent, should give heed to the place achieved by the patented article in the field of the practical art since the date of the patent, and should therefore decline to sustain the defense of noninvention and to strike down the patent and the business built upon it unless that defense has been established beyond a reasonable doubt. In this case we find that the appellees have not so maintained their defense." (P. 274).

Railroad Supply Co. v. Hart Steel Co. (C. C. A. 7th 1915) 222 Fed. 261.

Taken the patents separately, in chronological order: In Patent No. 518,239 of Goode (p. 254) there is not even the semblance of an intimation of Shope's invention. No additional water is applied; the artificial stone hardens in the mold, "usually for about twenty-four hours." Shope particularly mentions this, and discards it for his improvement (p. 213). Appellants give this Goode patent scant reference (Brief, pp. 34, 43). Appellee should have equal liberty. The process can not lend itself to commercial mass production.

Goode repeatedly sifts neat cement on the surface; as long as water oozes from the block. Mixture of water and cement *may* be smoothed down and will form a waterproof skin in the sense of Shope. There is no suggestion of making the aggregate in form to be immediately removable from the mold, nor is there information as to making the body of the block dry enough to merely hold together and by the *addition* of sufficient water carrying the cement to fill the interstices of the surface. Goode specifically states that to obtain his result the mold must be kept for about 24 hours before the block is hard enough to be removed. Primarily his intention is to obtain a beneficial result by the use of lime water to the surface of the stone. He mentions (Page 2, line 4, etc.) that his stone can be produced without such lime treatment.

Dr. Werner stated in cross-examination (p. 194) Shope's brick can be made by a number of the patents cited; one of them being Goode. The question is of mixing *in situ*.

Patent No. 527,416, of Federici (p. 258) is dignified by one reference in appellants' brief (p. 22) wherein appellants distinguish the patent from Shope in the statement: "Federici in 1894 regarded as unpatentable what plaintiff is now attempting to claim." Shope is not accountable for Federici's mistakes. This patent describes and visualizes large pebbles in a liquid mass of cement which is hardened in the mold, having in mind nothing more than a building block, and covers an article of manufacture, and is not a process patent: (p. 207).

In the patent in lines 63 to 90, patentee by disclaimer emphasizes what he means. Line 73 and onward he says * * * "but I am *not* aware that a building block has ever been constructed with exposed surfaces consisting of very small pebbles partially imbedded in the layer of pure cement." His claim fully substantiates this as does figure 3 discussed in cross-examination. Figure 2 is a plane view of the face of the stone (Lines 24 and 25). It must not be construed as a section. Figure 3 is a section.

There is no relation between this and Shope other than that Federici's stone might be waterproof for all we know and care. It does not use the steps of Shope nor suggests them.

Patent No. 531,842 of Haddock (p. 262) is one of the two patents now emphasized by appellants, whose brief emphasizes largely the cement block which is ad-

mittedly old in the art. It is the facing Shope emphasizes and where is there a clear and concise and specific statement in Haddock's patent or appellants' brief that if you mix on the top of the brick you will get a result? Shope specifies the amount of water to be used, Haddock does not. A lengthy differentiation of this patent from Shope by Dr. Werner has already been included in this brief (pp. 18-21).

It is useless to repeat. The U. S. Patent Office saw the distinction and withdrew this patent from an anticipation of the patent in suit. Appellants' attempt to piece together Haddock and Goode, as well as others, to anticipate Shope, is not lawful.

> " * * * In order to negative novelty or as it is usually expressed, to 'anticipate' an invention, it is necessary that all of the elements of the invention or their equivalents be found in one single description or structure where they do substantially the same work in substantially the same way."
>
> Walker "Patents" (5th Ed. 1923) g52, p 67.

Briefly further differentiating Haddock from Shope we find mixing "in situ" again is the differentiation and the issue. Following Haddock's instructions you do not practice even the first claim of the Shope Patent, for Haddock's conception is a three layer one structure and you can not stop short of his result to find something of Shope. We wish to emphasize that agitation, that is, mixing *"in situ"* is not in Haddock.

Novelty is not negatived by anything not substantially identical with the subject of the patent even though the function of the prior process was identical with that of the patented one. This rule follows from the doctrine that a valid patent may be granted for a new means of producing an old result.

Patent No. 703,644 of Davies (p. 266), is for making cement fence posts and dipping them in a "bath of liquid hydraulic cement" and hardened in the mold, which Shope's process is designed to avoid. This is cited to show the outside waterproof coat was old. (Brief p. 34). Admit it and we shall have invention and patentability if the Shope patent does an old thing in a modified or improved way (Railroad Supply Co. v. Hart Steel Co. (Supra P. 32) and appellee claims it does by his method of mixing. Picture a business of manufacturing fence posts under Davies patents, then visualize such business making either round or square fence posts under Shope process! Shope's result is secured by Davies' cumbersome steps, but Shope's is vastly different from Davies' process which does not lend itself to commercial production. For testimony of detailed distinction, see this brief p. 21. Davies removes the molded material before it has become entirely set and dips the article one or more times in a bath of liquid hydraulic cement of such fluidity that it will run smoothly and evenly over the entire exposed surfaces of the post and fill all cracks, crevices and interstices.

There are only two objections to this. First, it can't be done and second, what will be done with the bricks, between dippings. Granting that it can be done, it still in nowise anticipates Shope's mixing *"in situ"*.

"It should also be borne in mind in considering this subject that reasoning by analogy in a complex field like chemistry is very much more restricted than in a simple field like mechanics. This distinction has been frequently recognized by the courts.

'Of course, a discovery to be patentable must have the attributes of invention; but the mental operation is somewhat different in one who invents a machine and one who discovers a process. * * * The mere selection of a material, and this, too, by a process of exclusion, has been deemed sufficient to sustain patentability, and the patent law abounds in instances in which patents have been upheld where the inventor stumbled upon the discovery in total oblivion of the reason why effect followed cause.' * * *

"We shall not lengthen this opinion by quoting extracts from decisions to illustrate the principle."

"The same principle is admirably illustrated by Lord Justice Vaughan Williams, in his opinion involving the Andrews patent. In discussing the limitation of the doctrine of equivalents in patents based upon a chemical process, he says:

'It was urged on behalf of the petitioners that Frichot's patent was an anticipation of Andrews' invention, because all oxidizing agents which liberate nascent oxygen are chemical equivalents, and if you once have a man say, 'I proposed to bleach flour by nascent oxygen which is liberated from ozone,' that is an anticipation of the subsequent patent, which says, 'I propose to bleach flour by an oxidizing agent of another character which only operates, and can only operate, by the liberation of nascent oxygen or its equivalent.' The answer to this is put in this way: *That you cannot apply the doctrine of mechanical equivalents to a chemical patent,* because you cannot predicate that all oxidizing agents will act in the same way, and cannot, therefore, predicate that in conditioning flour an oxide of nitrogen, or an oxidizing agent of the chlorine or bromine type, will act in the same way as ozone or any other oxidizing agent mentioned in Frichot's patent.' * * * (P. 919.)

"The learned judge qualified the language which we have italicized later in the opinion when speaking of the doctrine of equivalents in chemical cases, and states the correct rule with remarkable precision as follows:

'The doctrine does apply in cases where, having regard to the subject matter, it can be truly asserted that one of two or more chemical substances *is well known as producing the same effect on the same subject-matter.*' * * * (pp. 919-920.)

"When it is sought to ascertain the state of the art by means of prior patents, nothing can be used except what is disclosed on the face of those patents. Such patents cannot be reconstructed in the light of the invention in suit, and then used as a part of the prior art."

Naylor v. Alsop Process Co. (C. C. A. 8th 1909), 168 Fed. 911.

Patent No. 751,089 of Mallette (p. 276), in appellants' eyes merited no cross-examintaion and no comment in brief other than one general reference (p. 22). The patent is for concrete building blocks in the manufacture of which patentee pours a liquid cement into a mold filled with coarse aggregate. Mallette is one of the many users of fine slurries poured upon the aggregate to fill the interstices. No question that intelligently practiced stone waterproofing in the sense of Shope could be produced allowing the stone to harden for hours or days in the mold. As to agitation there is no suggestion; as to mixing *in situ,* there is not even an indication. It is a rather clumsy sort of an idea. The patentee seems to be under the impression that to get a good stone, the large fragments of his aggregate must individually be covered with mortar to adhere to each other. Presumably he wishes to have enormous interspaces so that his liquid slurry may penetrate as far as possible like Hassam.

Patent 958,194 of Thomas (p. 270) springs into prominence in the brief only. Its admission in evidence was neither dignified by explanation or its supposed effect accentuated by cross-examination. The patent is not in operation. While the Thomas patent was filed in the patent office October 12, 1907, and Shope did not make his invention until 1908, there is no showing that Shope ever knew of the existence of the Thomas idea or application.

> "An application prior to the patent in suit can have weight only if there has been some actual use of the invention, so that there may be elements of publicity. Such an application cannot be said to be a part of the prior art unless this element of publicity is present." (p. 546.)

Thomson-Houston Electric Co. vs. Ohio Brass Co.. (C. C. Mass. 1904), 130 Fed. 542.

Approved in Alvord v. Smith & Watson Iron Works et al (C. C. Or. 1914), 216 Fed. 150.

Appellants cite authorities on the presumption of validity to show how frequently Courts have overcome it (p. 25). That has nothing to do with the case at bar. The presumption of validity of the Shope patent is covered by decisions of the Supreme Court listed in the following excerpt:

> "'A patent should be construed in a liberal spirit to sustain the just claims of the inventor.

This principle is not to be carried so far as to exclude what is in it, or to interpolate anything which it does not contain. But liberality, rather than strictness, should prevail where the fate of the patent is involved, and the question to be decided is whether the inventor shall hold or lose the fruits of his genius, and his labors.' 'The court should proceed in a liberal spirit, so as to sustain the patent and the construction claimed by the patentee himself, if this can be done consistently with the language which he has employed.' 'In a case of doubt, where the claims is fairly susceptible of two constructions, that one will be adopted, which will preserve to the patentee his actual invention.' 'The object of the patent law is to secure to inventors, a monopoly of what they have actually invented or discovered, and it ought not to be defeated by a too strict and technical adherence to the letter of the statute, or by the application of artificial rules of interpretation.'" * * *

"That liberality as often shows itself in a narrow construction as in a broad one; for narrow construction may be as necessary to establish the validity of a patent, as a broad construction is to lay the foundation for proof of its infringement. Therefore when it becomes necessary to construe a claim narrowly, in order that its novelty may not be negatived by the prior art, or its validity otherwise overthrown, courts will give such a narrow construction, if they can do so consistently with the

language of the claim and of the description. On the other hand, a claim will not be narrowed by importing into it, by construction, any dispensable element, in order to enable an infringer to escape the consequences of his infringement."

Walker "Patents" (5th Ed. 1923) Sec. 185, p. 247.

"It has been held in several circuits that when no practical use has been made of the patent the claims will be narrowly construed, the reason for so holding being that in such a case the patent lacks the support that comes from public acquiescence. And as a corollary to this proposition it is held that where the invention is a practical success and constitutes a distinct advance in the art the claims are entitled to a liberal construction."

Walker "Patents" (supra) Sec. 185a, p. 248.

The above rules are particularly applicable in the case at bar, and with the rules of presumption of validity of the patent in suit so established, appellants have not pointed out wherein the Thomas patent has overcome them. One-half of appellants' argument in brief quantitatively considered, is devoted to showing the block described as hoary with age in a crowded art. Admitted. But there is not described in Thomas a process of mixing *"in situ"* by which a definite result

is reached. The theory of Thomas is simply to take two slurries, superimposing the one of higher plasticity on the one of lower plasticity, and emphasizes that excess water is used for crystallizing the lower portion and not the facing. This is not Shope.

> "A device which does not operate on the same principle cannot be an anticipation." (p. 284.) "* * * It is not sufficient to constitute anticipation that the devices relied upon might, by a process of modification, reorganization, or combination with each other, be made to accomplish the function performed by the device of the patent sued on." (p. 285.)
>
> Los Alamitos Sugar Co. v. Carroll (C. C. A. 9th, 1909), 173 Fed. 280.

Patentee has trouble with producing facing sufficiently dry to immediately remove (pp. 55-65) and this criticism is fully substantiated by his claim of "sifting on such surface powdered stone and cement to stiffen the surface of the facing, and prevent the escape of moisture therefrom." This patent will produce a faced brick similar to Shope's but by a different method. Briefly we put Shope's mixing *"in situ"* on one side of the scales of justice and rest assured it will outweigh the cited patents and argument thereon, on the other.

The epigram cited by appellants "That which infringes a patent if later, would anticipate it if earlier"

is not true in this case under the criticism thereof offered by Walker "Patents" (5th Ed. 1923) p. 77.

Appellants on an issue of anticipation have the burden of proof thereof. Where the identity of method and results in the two devices is not proved or doubtful, the doubt must be resolved in favor of the patent.

> Victor Talking Machine Co. et al v. Duplex Phonograph Co. (C. C. Mich. 1909) 177 Fed. 248.

And the measure of this burden of proof is of the same degree as in criminal cases, beyond a reasonable doubt.

> Clark v. Geo. Lawrence Co. (C. C. Ore. 1908) 160 Fed. 512.

We submit it can not be said the degree of alleged proof in this case has risen to any such dignity.

I (b) Appellants' next claim against the Shope patent is that "nothing shown by the patent involves invention." If invention should mean "something new under the sun," in an academic sense it would be doubtful if the human race or any of its members ever *invented* anything. But there are untold instances where taking existing things and natural laws, and putting them in combination, something new in method or substance is *discovered*. "A new process is usually the result of a

discovery; a machine of invention." Tilyman v. Proctor, 102 U. S. 722. In patent law it is in this sense "invention" is used. Shope discovered that by following the process described in his patent a waterproof face was put upon a block which you could not chip off as could be done to other processes of facing, and that principle has been the basis for a new era in building and building material. Appellants find themselves in this dilemma: If there is no invention in Shope, how is it that so many patents, of course valid (which must include invention), anticipate him?

> Speaking through Justice Knowles, this Court said: " * * * the patent, when introduced in evidence, is prima facie proof of its own validity, unless it appears on its face not to be such a document as the statute prescribes, * * * the burden is cast upon defendant to show * * * the patentee is not the first inventor". (p. 259). "But the want of invention in a patent is a matter of defense unless the thing for which a patent is claimed shows on its face that it is without invention". (p. 260).
>
> Hunt Bros. Fruit Packing Co. v. Cassidy (C. C. 9th 1892) 53 Fed. 257.

No reference is made by those seeking to destroy appellee's patent to this testimony produced by questions of learned counsel for appellants:

Q. "I won't indulge in discussing words, but that is what he is undertaking to do to tell the world he has made some improvement in the method of waterproofing cement blocks?"

A. "And I tell you, as far as my investigation goes, he did. I can see in the light of what he has told me that you can practice him without subtraction or addition of certain matter from the language of other patents, and I have fairly tried in literature of the art, or in the patents, to find this simple statement in a simple fashion, to find the specific direction, but I have been unable; perhaps you are." (p. 204-5.)

There is no oral testimony to refute the above conclusion and appellants must depend upon the argumentative testimony of their counsel to show lack of invention by other patents.

"Under such circumstances courts have not been reluctant to sustain a patent to the man who has taken the final step which has turned a failure into a success. In the law of patents it is the last step that wins. It may be strange that, considering the important results obtained by Kelly in his patent, it did not occur to him to substitute a coiled wire in place of the diamond shape prong, but evidently it did not; and to the man to whom it did ought not to be denied the quality of inventor. There are many instances in the reported decisions of this court where a monopoly has been sustained

in favor of the last of a series of inventors, all of whom were groping to attain a certain result, which only the last one of the number seemed able to grasp." (pp. 282-3.)

The Barbed Wire Patent (1891), 143 U. S. 275.

Testimony last above quoted places Shope in the position of Weber in the following statement of the law:

"When a desired result is sought by those working in the art and skilled therein, but not obtained for lack of efficient means, which such persons are unable to devise, and another comes into the field and by some seemingly simple change and adaptation of an old means or element in a combination of elements to the doing of the work is able to do the desired work, accomplish the desired result, a new result, or a better result, by such new means operating differently from anything known in that art, or an analogous art, and such device proves commercially successful, and largely displaces all others, and is more efficient and just as durable, or even more durable, and is less costly in construction, do we have invention, or do we not? The electrical art is not old. The construction of electrical appliances is in its youth. True, Weber did not startle the electrical world, or make a daring plunge into the unknown; but he did conceive and make an improved and a safer and a less expensive in-

candescent electric lamp socket, which, on its merits, has gone into general use and substantially monopolized the trade. All this is persuasive evidence of invention. He 'added something of value to the sum of human knowledge,' he 'made the world's work easier, cheaper, and safer,' and 'a return to the prior art would be a retrogression.' The device has achieved undisputed success, and accomplishes a result not obtained before in this important field. The device is new, useful, and in large demand. Therefore the device is patentable, and there was invention." (p. 85.)

Weber Electric Co. v. National Gas & Electric Fixture Co. (D. C. N. Y. 1913), 204 Fed. 79.

"The law which we believe is applicable to these facts has been frequently declared and may be briefly summarized. Invention of a combination does not lie in gathering up the elements that are employed, but consists in first conceiving that a new and desirable result may be attained by bringing about a relationship of elements which no one has before perceived and then going forth to find the things that may be utilized in the new required relationship. In an old and well-developed field the apparent simplicity of a new device is often the highest evidence of inventive genius. So far as human minds are able, judges should exclude from view the disclosure of the patentee, should

regard the patentee's problem as of a time antedating the application, and should therefore not too readily accept the ex post facto wisdom of the bystander. Prior art structures are to be examined in view of the purposes and laws of such structures. It is not enough that a prior art device approach very near the idea of the patent in suit; it must so clearly disclose the idea that it would be apparent to a mechanic of ordinary intelligence who was not examining the device for the purpose of discovering in it the idea of the patent. For, if he already had that idea, he would not be getting it from the prior art device, but from his own imagination or some other source." (p. 273, citing many cases.)

Railroad Supply Co. v. Hart Steel Co. et al (C. C. A. 7th 1915), 222 Fed. 261.

A strong and more lengthy statement of the characteristics of invention to be applied here was made by this Court at page 283 in the case of Los Alamitos Sugar Co. v. Carroll (C. C. A. 9th 1909), 173 Fed. 280, citing the Supreme Court in accord. It is very familiar to this Court.

I(c) The Shope patent is not invalid because inoperative. We may safely start with the premise that Shope's process has done something to a cement brick to effect a demand, sale and use of "two to three hundred thousand face brick per day" (p. 60). This fact

does not easily lend itself to the argument the process is inoperative.

Appellants confine the claim the patent is "inoperative" to an alleged disclosure the patent will not do what it says it will, and in support thereof cite the following evidence: (1) The application described in Shope was effected in the patents above discussed (p. 46); (2) these patents and Shope obtain the same *result* (p. 47); (3) cement particles will not enter the interstices between particles of sand compacted in mass as shown by Starks, Fleming, Appellant Ward and Dr. Strong (p. 47); and (4) the Hassam (p. 50) and Stevens patents (p. 51) in their respective adjudicated cases.

There are two answers to the first suggestion. It is strange, if the process in suit is inoperative that others dignified it, according to appellants theory, with patenting the same thing, or if it was so old in the art, they omitted it, the citation of patents as infringing Shope was without the sincerity attributed to their disclosure. Again Dr. Werner's testimony and the fact that you might get the "same result" in other patents, is immaterial. This is a *process* not a *product* patent. This answers the second reason as well.

Further, there is no substantial testimony before the Court that cement molecules will not enter the interstices of a brick under Shope process. All Shope needs is "some" penetration to make a face brick, waterproofed and which can not be chipped off. Stark

admits some penetration (p. 138). That is sufficient. But the inadequacy of Stark's and Fleming's testimony has been disclosed. Neither ever saw a Shope brick made. Ward says he "tries to keep away from agitation," if so and there is no penetration, why could one not with a pocket knife chip the face off of a Ward & Peterson brick without any substantial part of the cement block with the chipped portion of the facing? Dr. Strong never made a Shope brick as did Dr. Werner. Dr. Strong took "sand itself" (p. 157) which he says offers a "maximum of voids" for his experiment. Naked observation will show the Shope brick exhibits (Pf. Exhibits 11, "A," "B," "C," "D" and 11 "E," 12 and Def. Exhibit "X") have greater voids when hardened with cement than a block of pure sand, admittedly not specified in the patent. Dr. Strong admitted there would certainly be some voids, and if water and cement in high plasticity were applied to these voids, "if the void is larger in diameter than the particle of cement is in diameter, of course it will fall in." (p. 170) and further stated "There isn't any void large enough to take care of the cement particles" (p. 159). For this reason Dr. Strong said there could be no penetration. He further used the example of filteration. As against such testimony and conclusions, we submit the following: If appellants mean that water did not carry cement particles to the bottom of the brick, we agree. Such is not necessary or required by the patent. The process of filteration does not mean that all particles go to the bottom of the filter medium. Witness Dr. Strong's own

testimony of putting the "clouded" liquid back through the filter until "shortly after you have carried that on, a liquid comes through clear." Dr. Werner testified from Standard Government specifications that twenty-five per cent of ordinary cement will float upon a 200-mesh sieve, and twenty-five per cent of these particles will be finer than 2/10000 of an inch, which is well within the border land of suspension and by taking a large quantity of water and small quantity of cement, one could use in part a collodial suspension which would pass through a filter, and no difficulty could be seen why they would not enter the superficiary pores of a Shope brick. As fixing the quantity of water to be used the patentee says "sufficient" to enter the pores (p. 175). So much for theory, but in addition Dr. Werner made preliminary tests in his laboratory at St. Louis, Missouri, on a fairly extensive scale and then made tests at the Shope brick plant in Portland, Oregon, to observe whether the commercial operation coincided with both his laboratory experiments and patentee's description of his process (p. 186). Take Shope brick Exhibit 11-A which was made under Dr. Werner's direction, reading to the workman, the steps from the patent. Penetration is shown in a "most drastic fashion" (p. 187). Exhibit 11-A was stippled and Exhibit 11-B was finished smooth with a trowel (p. 188) and while made the night previous to its introduction in evidence, was broken in court and while still fresh exhibited to the Court and for the record Dr. Werner testified it "unquestionably" showed penetration. Evidently through incredulity of Dr. Strong's testimony, Dr.

Werner made another test, not of a commercial product, but to show penetration of white cement into black coke. The process and result showing penetration is described. (Supra, p. 14.)

The effect of agitation accentuates this natural operation, but it will be noted that appellants do not attack this phase of the patent, but seek to avoid it under infringement. (Supra, pp. 30-31.)

The last line of attack is the anomalous one of arguing the inoperative features of the Shope patent from court decisions. Judge Bean held one not evidence (p. 155). Opposing counsel ably distinguishes Hassam from Shope. Hassam was used as an illustration on cross examination to see if a witness would admit a smaller particle might go into a larger hole in another body. He admitted it. The patent is of no further interest.

The Stevens patent was cited in the answer to show anticipation of Shope (p. 32). Appellants now gracefully and properly abandon that position (Brief, p. 54) and find a new use for it. If Stevens' patent says Shope is not operative—then why should counsel cite Davies and other patents as valid and anticipatory of Shope, for they must all be inoperative as well. Shope does not say "all cement will enter the pores," Stevens does not say "None of the cement will go into the relatively dry sand." Appellants' argument avoids any middle ground. In logic, it is bad, in fact it is disproved.

Enough cement under Shope process enters to make a waterproof cement face.

Appellants challenge that "The operativeness of the alleged invention, although positively denied, was not attempted at the trial to be proved," (Brief, p. 9) is inaccurate. The trial court was asked to visit the plant and witness operations, and if it had possessed any doubt would have so availed itself (p. 168).

II (a) The question of whether appellants have infringed appellee's patent has been treated by opponents in two phases. The treatment of seeking to avoid infringement by declaring appellee's patents invalid depends for success upon invalidity and, we submit, the validity of the Shope patent positively shown. Of course, under the premises of appellants' reasoning, the conclusion is unimportant.

II (b) Appellants now claim they do not practice Shope as defined in the patent. The fact of infringement was so clear that Judge Wolverton issued a preliminary injunction which is unusual on an unadjudicated patent. After hearing all the evidence, Judge Bean said in his judgment on this point, there was "no room for controversy."

Pardon the digression, appellants' statements that the lower court was "misled," "led into palpable error," "deceived," did not give "critical attention" or "proper analysis" as disclosed by an "oral" opinion, remind one of the lamentations of a fond mama that "all the army

was out of step except her son." The analytical power of Judge Bean and his conscientious preparation, as well as a long line of unreversed decisions, are too well known to both bench and bar to offer more than trite opportunity for eulogy.

To return, not to speculation but evidence. Appellant Peterson could not in detail describe the process (supra, p. 29); Appellant Ward did not "avoid agitation" (Brief, p. 58) but "I *try* to keep away from agitation" (p. 141). All the erudite testimony of Dr. Strong of the difference in treatment by the parties hereto of the water and cement on the face of the block crashed before the direct question:

> Court: "I suppose, Professor, you mean in plain English that one was rubbed more than the other?"
>
> Ans. "Yes." (p. 167.)

Infringement is, of course, sought to be avoided, but the identity of process is disclosed in two ways: First, take the cement brick, proclaimed as "old in the art," and appellants mix "ex situ" cement and water on a mortar board. They then apply this cement, in solution admittedly, to the face of the brick, *then apply more water.* An illustration was made on the afternoon of May 14, 1924, in both plants, expert Bilyeu, a mechanical engineer, saw the operations in both places, and described the repeated use of the whisk broom to provide water and the comment by Appellant Ward that

the broom had been hanging up and was dry so he had to return to the barrel more *frequently* for water. Otherwise Ward testified he "always made them the same" (p. 143). On this admitted testimony, Dr. Werner commented as follows:

> "They (the appellants) applied what is technically known, or rather in the parlance of the trade, as slurry; this slurry is placed upon the face of the brick by means of a trowel and thereafter a brush was used which had been repeatedly dipped into water. The quantity of water was not stated. If one bears in mind what I have said before in regard to these minute small particles which at the early stage of formation are not jelly like, but can be readily dispersed, as cement slurries can be, and then say that if these defendants use a material quantity of water, not necessarily a large quantity, but material, this slurry will function to give up some of these small particles to now function according to the patentee, in other words, wash out sufficient of the cement, merely suspended cement, to enter the pores, the question to me is simply this: How much water do they use to do this?" (p. 177.)

If Ward puts the whisk broom in water so it will "frizz out and acts more like a sponge" (p. 145) yet it performs a function of Shope's patent, i. e. adds water, the fact it performs another function, i. e., keeps the

brush "frizzed," will not prevent it being an infringement.

> Norton et al v. California Automotive Car Co. (D. C. Cal. 1891), 45 Fed. 637, 638.
>
> Masseth v. Palm (C. C. Penn. 1892), 51 Fed. 824, 826.

On the second phase of infringement, the statement that appellants avoid agitation is not correct, they "try to avoid" it, and even Dr. Strong admitted there must have been some agitation "in traveling back and forth, the movement of the particles one upon another, and must have been some mixing" (p. 167). Witness Bilyeu states that Ward went "back two or three times for more material until a complete surface coat was created" (p. 111). Certainly the repeated application of more cement to the surface and the repeated rubbing to effect a "complete surface coat" and stabbing with a broom, means agitation.

This application of water and mixing of the cement on the surface by broom or trowel is mixing "in situ" as disclosed by the patent in suit. The only difference being, as the Court said: "One was rubbed more than the other."

The difference in *degree* of agitation or in the *materials* used, are not matters which will relieve appellants from infringement.

"And as to the defendants' using a different method from that suggested in the patent for keeping up the mixture of fat and water, that is of no consequence. The keeping up of the mixture is the important thing. That is a necessary part of the process" (p. 731).

Tilghman v. Proctor (1880), 102 U. S. 730.

Another alleged distinction between the Shope agitation by wooden float and the Ward smoothing by metal trowel, attempted to be explained by Ward as a suction in the wood (p. 147) and agreed to as a distinction by their expert, Dr. Strong (p. 167) was refuted by Dr. Werner as not being any distinction (p. 185) and his conclusion verified and the "distinction" exploded by the offer to prove and final stipulation that Shope also used a metal face (p. 212).

In concluding argument, appellants ask the Court to not believe it if they see cement penetrated into the pores of a Shope brick, that such is not penetration but agitation as shown by the difference of the manufactured brick of these litigants. Both kinds of brick are before the court. They are now dry with the cementeous colored sand of the block mingling with the purer cement of the face, and the penetration not showing to the same depth as when fresh and the trial court observed them. Yet from the testimony of those present at the manufacture, penetration is unquestionably there.

It is accentuated by agitation, which accounts for any degree, and only degree, not difference, in process, between the Shope and the Ward bricks.

Appellants endeavor to differentiate their application of a slurry mixed *"ex situ"* from the Shope's mixing *"in situ."* A slurry is a semi-plastic mass which without pressure cannot be forced into the interstices of a green block, but a suspension such as Shope uses when mixing his materials "in situ" will enter the block by itself and continue further with slight agitation. The slurry after a time undergoes a process of gelation. At the time of the application to the block, it may or may not be (depending on the time allowed to stand) in this latter condition, but it is at least a semi-plastic mechanical mixture such as the mud spoken of by opposing expert. The addition of water thereto with agitation produces Shope's identical process of mixing "in situ." Due to the addition of water it permits the finer particles of cement (Dr. Strong says they are not soluble, p. 159) now in suspension to enter the green block without pressure. This is what the defendants did and propose to continue to do if allowed. This process, if not identical, is the equivalent of Shope.

There are two tests of equivalency, either one of which infringe. This infringement falls under the head of "Substantial identity of way of performing that function" described in Shope and practiced by Ward. Walker "Patents" (5th Ed.) Sec. 362, p. 446 and "Reason seems to indicate that one act is the equivalent of

another when it works substantially the same way to accomplish the same result." Walker Patents, Sec. 338; and infringement by Ward is not avoided by reversing the steps of the process by mixing the slurry on a board and then applying water and the slurry. Walker, Sec. 338, p. 422.

"A patent for a process is infringed by him who, without ownership or license, uses substantially the process which the patent claims."

Walker "Patents," Sec. 335, p. 418.

One can not help but feel appellants' visit to the Shope plant, though denied, had a great deal to do with their production of a waterproofed faced cement block.

In conclusion, appreciation is expressed to the Court for its attention to argument on principle and fact, probably apparent. But no effort could be spared by the writer, so far as able, to disclose the validity of this contract between the government and appellee, which has contributed materially to building products in a commercial mass production and formed a basis for appellee's and other's fortunes, against those operating without similar dispensation, but from personal inclination with no more than a paltry number of faced brick at stake. The savage resistance encountered is out of proportion to the apparent ability of appellants or their personal requirements and offers food for reflection.

Patents are not voided for anticipation or want of invention unless such is proven beyond a reasonable doubt. Appellants' burden has not been sustained upon the general evidence, irrespective of invoking rules of commercial success, utility, public acceptance and evidence. Nor can infringement be avoided by appellants by claiming differentiation only in degree. That the conclusion reached in the decision of the District Court of the validity of this patent and its infringement, is correct, is

Respectfully submitted,

ROBERT R. RANKIN,

Attorney for Appellee.

APPENDIX

Defendants' Exhibits	Date of Patent	Number of Patent	Patentee	Abstract Direct	Abstract Cross	Appellant's Brief	Appellee's Brief
Ex. "F"	April 17, 1892	518,239	Edward Goode	178		34, 43	15, 51-52, 53
Ex. "G"	Oct. 16, 1894	527,416	Antone Federici	179	206,207	22	17, 52
Ex. "H"	Jan. 1, 1895	531,842	Wm. J. Haddock....	179	198-206	32, 36, 43	18-21; 52-54
Ex. "J"	May 9, 1899	751,089	Chas. W. Stevens....	178-180	208	51, 52	17, 68, 71-72
Ex. "L"	July 1, 1902	703,644	Edw. Davies	180	208-212	23, 34	21-23; 54-57
Ex. "W"	Feb. 2, 1904	751,089	Fred A. Mallette....	181		22	16, 57
Ex. "V"	May 17, 1910	958,194	Augustus O. Thomas	184		24	15, 16; 58-67